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# Weekly Bulletin



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GUY P. JONES  
EDITOR

## Time To Attack Endemic Goiter.

In some sections of California simple endemic goiter is present to so great an extent that it may truly be said to constitute a public health problem of considerable magnitude. No complete survey of this disease has been made, but the results of the medical examinations of recruits at Camp Lewis, during the recent war, gives an indication of the extent of this disease in Pacific coast states and in the northwest. Of these examinations, Dr. Wilson R. Adams of Medford, Oregon, said recently:

"We know that goiter is endemic along the Great Lakes, the Pacific Northwestern States, British Columbia, and Alberta. During the late World War in the 21,000 recruits examined at Camp Lewis 11% of the men from the State of Washington had goiter, and 8.6% of those from Oregon. Another report we have been furnished with is by Hall at the University of Washington. He examined 3,339 students and found 18% of the men and 31% of the women had enlarged thyroid glands. Such figures as these bring us face to face with the fact that certainly goiter must be one of the largest health problems; if not the largest, we have to contend with in our immediate locality."

In his address, Dr. Adams made application of the more recent discoveries for the prevention of simple goiter, reciting these findings chronologically. He said, further;

"The first important observations upon the functions of the thyroid gland was published in 1874 by Sir Wm. Gull, but it was not till 1895 that Bauman discovered iodine was the normal constituent of the thyroid gland. From then on our knowledge has progressed rapidly. Marine and Lenhart in 1907 showed that when the amount of iodine stored in the thyroid falls below .1% active hypertrophic and hyperplastic changes in the thyroid begin. In other words no goiter can develop if the iodine store in the thyroid is kept above .1%. The iodine compound found in the thyroid and isolated by Kendall is known as thyroxin. Marine states that 'The thyroid has to do in some way with the internal respiration or the utilization of oxygen by the tissues. Indeed, this is the only known function.'

One of the first practical applications of the principal of prevention of goiter and myxedema accidentally followed the discovery of salt in Michigan, and its more extensive use in the sheep industry at a time when this industry was being crippled by endemic goiter. This crude salt was found to be rich in iodine and its use was the main factor in stopping goiter among sheep. The first definite application of iodine in the prevention of goiter, on a large scale in animals, was in the brook trout in Pennsylvania. This investigation showed that goiter could be prevented in young fish, under the same conditions which produced goiter, by adding a very small amount of iodine to their food or water. During this experi-



mental work Marine established the fact that simple goiter was an iodine deficiency disease.

It was not till 1917 these findings were used in the prevention of goiter in man, upon a large scale. In this year Marine, Lenhart, and Kimball made a goiter survey in the schools of Akron, Ohio, and began the practical application of the principle of goiter prevention. The public schools were selected because children are in the adolescent age, the most important period in the development of goiter; and the schools furnish the best census of goiter in any community; also makes it easy to carry out prophylactic measures. In this survey only the girls were examined on account of the infrequency of goiter among boys. 3,872 girls were examined with the following results: 43.6% had normal thyroids, 56.4% had enlarged thyroids. In April of that year the first prophylactic treatment was given to more than 1,000 girls, who desired to take it. It was not a compulsory measure. The treatment was carried out for three years and consisted of taking 0.2gm of sodium iodid daily for ten consecutive school days and repeated each spring and autumn. The results at the end of the third year were as follows: Of those that were normal at the first examination and did not take iodine 27.6% had developed enlarged thyroids, while those that were normal at the first examination and did take iodine .2% had developed enlarged thyroids; of the cases classed as having slightly enlarged thyroids at the first examination and not taking iodine 13.3% underwent further development, while those taking the iodine only .3% underwent further development; of the group with small goiters, taking iodine, 58.7% returned to normal while those of the same group not taking iodine 13.9% returned to normal. This demonstration at Akron extending over a period of three years I think is sufficient proof of the benefit of iodine in the prevention of simple endemic goiter. Since that time various other cities and communities in this country have followed this line of treatment with equally good results. Prof. Klinger of Switzerland since 1918 has been following a similar plan with even better results. It is my understanding that the Government of Switzerland has now made it a compulsory measure for all school children.

In the preventive treatment one must keep in mind three periods when the thyroid enlargement most commonly occurs—(1) fetal period, (2) adolescence, and (3) pregnancy. Kimball states that prevention of goiter in the mother and the fetus is as simple as the prevention of

goiter occurring in adolescence. So the responsibility in the prevention of goiter during the fetal period and pregnancy is properly placed upon the medical profession. The prevention of goiter during adolescence should be a public health measure under the control of the city, county, or state.

#### Conclusions:

(1) Simple endemic goiter is a geologic deficiency disease due to the lack of iodine.

(2) Iodine should be given between the ages of 6 to 17, after the 25th year it exerts little if any beneficial effect on goiter.

(3) About 90% of all malignant tumors of the thyroid begin in fetal adenomata.

(4) Which is the most important—The correct administration of iodine to pregnant women, and the child in adolescence will prevent endemic goiter."



#### Health Board

##### Appoints Expert.

Professor M. E. Jaffa, for many years professor of nutrition at the University of California and a nationally known expert, has been appointed director of the Bureau of Foods and Drugs of the California State Board of Health. Professor Jaffa sponsored the legislation that led to the establishment of the State Bureau of Foods and Drugs in 1907 and was the first director of that bureau. He held this position until 1915, when he resigned in order to devote more of his time to university work.

Professor Jaffa is not only a capable administrator of food and drug regulations, but he is also a renowned research worker in nutritional and feeding problems. His experiments in poultry nutrition have brought him national fame and have contributed greatly to the prosperity of the egg and poultry industry. He is typically a California product, having graduated from the University of California in one of the early classes.



Are American children undernourished? Physicians and nurses holding child-health conferences in 43 states, under the Federal Maternity and Infancy Act report that malnutrition, or undernourishment, is prevalent among the children they examine. Other frequent defects are eye, nose and throat abnormalities, cavities in the teeth, orthopedic defects, glandular enlargements or insufficiencies. Nearly 600,000 infants and pre-school children were examined by states cooperating under the Maternity and Infancy Act during the two years, 1924 and 1925.



### Results Show In War On Diphtheria.

Even diphtheria, which has loomed up like a spectre in California during the past few years, is now showing a reduction in prevalence. Diphtheria and scarlet fever are likely to exact heavier tolls during the winter months than any other of the common communicable diseases. Both of these diseases are amenable to control measures, specially diphtheria. If the general public were to take advantage of the recent developments for preventing diphtheria, this disease could be made one of the most uncommon of the communicable diseases.

Immunization against diphtheria is a simple procedure which insures the child against contracting the disease. Any doctor of medicine can provide this protection at low cost and it is successful in preventing the disease. The child loses no time, does not suffer bad after effects and encounters little or no pain. Thousands of California children, living in all parts of the state, have been immunized during the past few years. In some of the cities where this procedure has been followed faithfully for a period of years, no cases of diphtheria have appeared since immunizations have been the rule.

Most people are not interested in health until they are sick. Then they are willing to pay any price to recover lost health. The better way is to safeguard health, so as to avoid sickness. If every parent were to obtain the benefits of modern health procedures for their children, many communicable diseases could be reduced to almost the vanishing point. It is a fact that scientific methods for maintaining health are available in greater number today than ever before in the history of preventive medicine. Whether they shall be employed or not depends upon the readiness with which the general public makes use of them. Diphtheria, smallpox and typhoid fever can absolutely be prevented. There is no excuse for any individual to contract any of these diseases. Immunization is available, which will insure against any or all of these diseases.

The winter months always bring added cases of respiratory infections, including common colds. Even these common infections can very often be prevented by careful observance of the ordinary rules of hygiene. Not all of them can be prevented but the avoidance of those indiscretions of diet and common neglect that always bring a lowered state of resistance will do much to prevent the occurrence of common colds.

### Long Beach Children Receive Immunizations.

Dr. G. E. McDonald, City Health Officer of Long Beach, is carrying on an active campaign for securing general immunization of children against diphtheria. He began his work in the Temple Street school. This school is one where the pupil's parents can least afford to pay for the work and where there is the least objection to such procedure. A letter was sent to the parents, stating the situation, that diphtheria has continued to exist in that school district for many months, advising them to consent to have their children immunized against diphtheria and to have them taken either to their family physician or, if they preferred, they could be immunized by the health officer at no cost.

It seemed advisable to proceed in this one school as a demonstration so that favorable public opinion might be developed for the extension of this service to the other schools. One hundred and seventy-five children have been given two doses of toxin-antitoxin. An interesting feature of the campaign lies in the fact that very many children of pre-school age also came for this service, and since the administration of the first dose after other children saw that there were no bad effects, over fifty more came to the health department's office to begin their immunizations. It would appear now that all the children of the school will be immunized before the first of the year.

It is interesting to note the changed attitude of many parents after they had observed that none of the children had suffered any untoward effects from immunization and only one child needed a special dressing for a slight skin reaction on the arm. Doctor McDonald uses one platinum needle, flaming it between each injection and he states that he was able to give the immunization to 175 children in two hours; also that the cost to the city was less than 18 cents per child.



Health education activities should tend to make children interested in the welfare of their friends and neighbors in the community rather than to leave them concerned solely with their own comfort. This is essential, not only for social and moral reasons, but for the mental health of the child. Teaching which encourages him in introspection and constant examination of his own feelings usually result in nervous, morbid emotional states.

Emphasis on community welfare, discussion of health in positive terms of abounding vigor and strength, and measurement of health by concrete means such as weight, are safeguards against morbid habits of introspection.—Hygeia.



**MORBIDITY\*****Diphtheria.**

121 cases of diphtheria have been reported, as follows: Los Angeles 31, San Diego 21, San Francisco 18, Los Angeles County 11, Oakland 5, Ontario 1, Pittsburg 1, Maywood 2, Whittier 1, Fresno 1, Hawthorne 1, Long Beach 2, Pasadena 1, Huntington Park 2, Glendale 1, Burbank 2, Turlock 2, San Bernardino County 2, Berkeley 1, Stockton 2, Monterey County 3, Dinuba 1, Yolo County 3, San Diego County 1, Salinas 1, Santa Paula 3, Marysville 1.

**Measles.**

25 cases of measles have been reported, as follows: Los Angeles 14, San Francisco 3, Fresno 1, Los Angeles County 2, Sacramento 1, Dinuba 1, Siskiyou County 1, Santa Paula 1, Gilroy 1.

**Scarlet Fever.**

133 cases of scarlet fever have been reported, as follows: Los Angeles 32, San Francisco 12, Los Angeles County 11, Gridley 8, Long Beach 7, Lodi 6, Stockton 6, Ontario 5, Butte County 2, Oakland 2, San Mateo 1, Chula Vista 2, Yolo County 1, San Diego 4, San Jose 2, Maywood 1, Alhambra 1, Sacramento 3, San Marino 1, Santa Monica 1, Fresno County 1, San Bernardino County 2, Tulare County 2, San Bernardino 1, Hawthorne 1, Chico 1, Tracy 2, Lakeport 1, Berkeley 3, Turlock 3, Burbank 1, San Diego

\*From reports received on December 21st and 22d for week ending December 19th.

County 1, Pacific Grove 1, Santa Paula 1, Santa Clara County 4.

**Smallpox.**

54 cases of smallpox have been reported, as follows: Oakland 12, Sacramento 10, Los Angeles 8, Lincoln 8, Roseville 5, Mendocino County 5, Los Angeles County 1, Glendale 1, Long Beach 1, San Jose 1, Santa Clara 1, Marysville 1.

**Typhoid Fever.**

13 cases of typhoid fever have been reported, as follows: Martinez 1, Oakdale 1, Calxico 2, Blythe 1, San Joaquin County 1, Pasadena 1, Ontario 1, Hillsborough 1, Los Angeles 3, Marysville 1.

**Whooping Cough.**

24 cases of whooping cough have been reported, as follows: Azusa 6, Los Angeles 4, San Francisco 4, San Diego 3, Oakland 4, San Jose 1, Long Beach 1, Berkeley 1.

**Poliomyelitis.**

3 cases of poliomyelitis have been reported, as follows: Alhambra 1, Fresno 1, Pasadena 1.

**Epidemic Meningitis.**

5 cases of epidemic meningitis have been reported, as follows: San Joaquin County 1, San Francisco 1, San Diego U. S. Naval Training Station 3.

**Epidemic Encephalitis.**

2 cases of epidemic encephalitis have been reported, as follows: Fresno County 1, Alhambra 1.

**COMMUNICABLE DISEASE REPORTS.**

Disease	1925				1924			
	Week ending			Reports for week ending Dec. 19 received by Dec. 22	Week ending			Reports for week ending Dec. 20 received by Dec. 23
	Nov. 28	Dec. 5	Dec. 12		Nov. 29	Dec. 6	Dec. 13	
Anthrax.....	0	0	0	0	0	0	0	0
Botulism.....	0	0	0	0	0	0	0	0
Chickenpox.....	217	279	373	173	223	400	291	206
Diphtheria.....	144	139	115	121	213	218	190	194
Dysentery (Bacillary).....	0	2	4	0	0	0	4	1
Epidemic Encephalitis.....	4	1	2	2	4	2	2	1
Epidemic Meningitis.....	0	4	7	5	3	1	1	1
Gonorrhoea.....	118	99	77	142	86	105	89	53
Influenza.....	17	15	25	44	23	22	15	10
Leprosy.....	0	1	0	0	1	0	0	0
Malaria.....	2	1	0	0	0	0	1	1
Measles.....	10	27	34	25	26	42	39	46
Mumps.....	212	282	291	113	79	99	103	61
Pneumonia (lobar).....	35	62	93	58	53	82	66	62
Poliomyelitis.....	10	3	4	3	12	6	12	8
Scarlet Fever.....	171	144	143	133	163	171	167	127
Smallpox.....	55	47	51	54	79	103	82	99
Syphilis.....	96	127	132	100	111	123	109	96
Tuberculosis.....	125	129	242	156	207	164	226	155
Typhoid Fever.....	17	8	9	13	26	34	31	11
Whooping Cough.....	55	51	99	24	69	128	60	67
Totals.....	1288	1421	1701	1166	1378	1700	1488	1199

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